# Field Crops

## Growing Season Weather Summary

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Weatherwise, the 2008 growing season in Michigan will likely be remembered most for cool temperatures early and for extended dryness during the second half of the season. Prior to the growing season, Michigan had a very snowy winter season with much above normal snowfall totals in many areas. The above normal off season precipitation resulted in complete soil moisture recharge and abnormally wet soils across most of the State prior to the beginning of the season. One notable exception occurred in far northern sections of the state where below normal precipitation totals left soil moisture at below normal levels.

Weather during spring planting in April and May was generally cooler and drier than normal. While the drier than normal conditions generally allowed fieldwork to progress, the cool temperatures slowed germination and early establishment of crops. Widespread frost and freezing temperatures occurred on May 28, with sub-freezing minimum temperatures recorded across the majority of the State. This event was approximately 1 to 3 weeks later than the normal last freezing temperatures of the season and set new record lows for the date in some areas. The freeze was a radiation-type freeze event in which minimum temperatures varied greatly over only short distances. As a result of the wide variability of minimum temperatures, a wide variety of cold injury was reported, with replanting of crops necessary in some areas.

Heavy rain fell in many sections of the state in early and mid-June, with localized flooding and ponding in some cases. Frequent showers were a significant problem with forage harvest. Severe thunderstorms moved across southern sections of the State on July 2, bringing more heavy rain, flooding, and some damaging hail. Warmer than normal temperatures in late June and early July accelerated development of crops following the cool start of the season.

A broad upper air ridge developed across the region by mid-July and persisted through much of August. While mean temperatures remained close to slightly below the long term normals, rainfall in most of the State was well below normal. The drier than normal conditions led to crop moisture stress and ultimately to declines in yield potential across southern, western, and northern sections of the State. The lack of water was likely accentuated by the relatively shallow rooting depths of many crops due to the early wet, cool conditions and was especially pronounced on lighter, coarse-textured soils. One very notable exception to the drier than normal pattern was an eastern area of the State from the Saginaw Valley through the Thumb, where precipitation was close to normal and in some cases even above normal.

The abnormally dry pattern was broken abruptly in most sections of the State in early September with the passage of the remnants of three separate hurricanes or tropical storms. While hurricanes and their remnants typically move poleward from tropical and subtropical origins at some point in their lifetime, it is somewhat unusual for them to impact Michigan and the Great Lakes region. The first was the remnants of Hurricane Gustav, which initially made landfall in Louisiana and moved through Michigan on September 3 and 4. This system brought over 4 inches of rain to western sections of the Lower Peninsula. Because the rain with this system fell in a steady, moderate intensity over a several hour period, the vast majority of the precipitation soaked into the soil profile. On September 12 to 14, Michigan was impacted by two more tropical systems, the remnants of Tropical Storm Lowell on September 12 and of Hurricane Ike on September 14. Collectively, more than 10 inches of rain fell at some locations across the southwestern Lower Peninsula, leading to flooding and water-logged soils. Unfortunately, the rainfall was generally too late to be of major benefit to crops stressed by earlier dryness.

Overall for the 5-month May through September period, precipitation totals ranged from much below normal levels across northern sections of the State to much above normal levels across southern sections of the Lower Peninsula. Mean temperatures and seasonal growing degree day accumulations were generally near to below the climatological normals. Many crops lagged somewhat behind normal phenologically as a result. Fortunately, the first killing freeze of the fall season was also later than normal over most areas of the state, allowing an extended maturation and drydown period. The exception was the northeastern section of the State where freezing temperatures occurred during the second week of September. While crop yields fell back to normal or below normal levels in many sections of the State due to the extended dryness in July and August, they were much above normal across east central sections of the State where precipitation during the middle of the growing season was much closer to normal.

**Field crops: Acres harvested and value of production, 2004-2008**

| Item | Unit | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|---|
| Acres harvested | 1,000 acres | 6,372 | 6,481 | 6,441 | 6,459 | 6,454 |
| Value of production | 1,000 dollars | 1,644,811 | 1,684,860 | 2,281,287 | 2,790,551 | 2,844,588 |

**Grain storage capacity, December 1, 2004-2008**

| Year | Off farm | | On farm capacity |
|---|---|---|---|
| | Facilities | Rated capacity | |
| | *Number* | *Million bushels* | *Million bushels* |
| 2004 | 215 | 150 | 250 |
| 2005 | 215 | 148 | 250 |
| 2006 | 211 | 155 | 260 |
| 2007 | 210 | 160 | 270 |
| 2008 | 205 | 165 | 270 |

**Field crops: Record highs and lows**

| Crop | Unit | Record high | | Record low | | Year estimates started |
|---|---|---|---|---|---|---|
| | | Quantity | Year | Quantity | Year | |
| Barley | | | | | | |
| Harvested acres | 1,000 acres | 303 | 1932 | 10 | 2008 | 1866 |
| Yield per acre | Bushels | 68.0 | 1985 | 13.5 | 1933 | |
| Production | 1,000 bu | 8,400 | 1918 | 460 | 2008 | |
| Dry Edible beans | | | | | | |
| Harvested acres | 1,000 acres | 690 | 1930 | 130 | 2001 | 1909 |
| Yield per acre | Pounds | 2,100 | 1999 | 320 | 1917 | |
| Production | 1,000 cwt | 8,585 | 1963 | 780 | 2001 | |
| Corn for grain | | | | | | |
| Harvested acres | 1,000 acres | 2,800 | 1981 | 480 | 1866 | 1866 |
| Yield per acre | Bushels | 147.0 | 2006 | 21.5 | 1917 | |
| Production | 1,000 bu | 295,320 | 2008 | 15,120 | 1869 | |
| Corn for silage | | | | | | |
| Harvested acres | 1,000 acres | 498 | 1971 | 210 | 2003 | 1924 |
| Yield per acre | Tons | 18.0 | 2004 | 4.7 | 1930 | |
| Production | 1,000 tons | 5,565 | 1977 | 1,542 | 1930 | |
| Hay, alfalfa | | | | | | |
| Harvested acres | 1,000 acres | 1,444 | 1950 | 74 | 1919 | 1919 |
| Yield per acre | Tons | 4.2 | 1993 | 1.1 | 1934 | |
| Production | 1,000 tons | 5,040 | 1985,1986 | 118 | 1919 | |
| Hay, all | | | | | | |
| Harvested acres | 1,000 acres | 2,947 | 1924 | 780 | 1866 | 1866 |
| Yield per acre | Tons | 3.8 | 1993 | 0.6 | 1895 | |
| Production | 1,000 tons | 5,743 | 1986 | 1,014 | 1866 | |
| Oats | | | | | | |
| Harvested acres | 1,000 acres | 1,658 | 1918 | 55 | 2001,2007 | 1866 |
| Yield per acre | Bushels | 70.0 | 2003 | 18.5 | 1921 | |
| Production | 1,000 bu | 69,388 | 1946 | 3,080 | 2007 | |
| Potatoes | | | | | | |
| Harvested acres | 1,000 acres | 374.0 | 1895 | 36.4 | 1975 | 1866 |
| Yield per acre | Cwt | 350.0 | 2007,2008 | 26.0 | 1887,1916 | |
| Production | 1,000 cwt | 23,256 | 1904 | 3,557 | 1876 | |
| Soybeans | | | | | | |
| Harvested acres | 1,000 acres | 2,130 | 2001 | 1 | 1930 | 1924 |
| Yield per acre | Bushels | 46.0 | 2006 | 8.0 | 1927 | |
| Production | 1,000 bu | 91,540 | 2006 | 10 | 1930 | |
| Spearmint | | | | | | |
| Harvested acres | 1,000 acres | 8.7 | 1954 | 0.7 | 1935 | 1935 |
| Yield per acre | Pounds | 60.0 | 2006,2007 | 20.0 | 1965 | |
| Production | 1,000 lbs | 280 | 1948 | 27 | 1996 | |
| Sugarbeets | | | | | | |
| Harvested acres | 1,000 acres | 190 | 1999 | 48 | 1943,1953 | 1909 |
| Yield per acre | Tons | 28.7 | 2008 | 5.5 | 1916 | |
| Production | 1,000 tons | 3,903 | 2008 | 298 | 1943 | |
| Wheat, winter | | | | | | |
| Harvested acres | 1,000 acres | 1,515 | 1953 | 400 | 1987 | 1909 |
| Yield per acre | Bushels | 73.0 | 2006 | 10.5 | 1912 | |
| Production | 1,000 bu | 48,990 | 2008 | 7,350 | 1912 | |

# Barley

Michigan barley growers planted 12,000 acres and harvested 10,000 acres in 2008. Total production was 460,000 bushels, down 31 percent from 2007. The average yield decreased by 5 bushels to 46 bushels per acre. Barley planting began in April but was behind the five-year average. Cool temperatures in the spring delayed planting and early development; however, warm and dry conditions later in the growing season advanced crop progress to be in line with normal progress. Harvest began at the end July and was completed by the end of August.

**Barley: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Bushels* | *1,000 bushels* | *Dollars* | *1,000 dollars* |
| 2004 | 14 | 12 | 51 | 612 | 1.80 | 1,102 |
| 2005 | 15 | 11 | 47 | 517 | 1.80 | 931 |
| 2006 | 15 | 14 | 49 | 686 | 1.80 | 1,235 |
| 2007 | 14 | 13 | 51 | 663 | 2.50 | 1,658 |
| 2008 | 12 | 10 | 46 | 460 | 3.25 | 1,495 |

[1] Marketing year average.

# Corn

There were 2.40 million acres planted to corn in 2008, down 250,000 acres from 2007. Grain corn production was 295.3 million bushels, up 3 percent from 2007; 2.14 million acres were harvested for grain. The yield of 138 bushels per acre was up 15 bushels per acre from the 2007 crop. Farmers harvested 250,000 acres of corn for silage; the average yield was 16.5 tons per acre.

Planting of corn in Michigan began in earnest about April 20, slightly behind normal. Field conditions improved in early May; planting progressed rapidly and was virtually complete by June 1, slightly ahead of schedule. Emergence was also ahead of normal; by June 10 almost all corn plants were above ground. Some fields were flooded in west central Michigan, but damage was not extensive. Precipitation in other major corn areas in the spring was near normal. About three-fourths of the crop was rated good to excellent in mid-June. Crop development by August 1 was slightly ahead of normal. Precipitation in July, however, was .5 to 1.5 inches below normal in all districts except the East Central. As a result, over half of topsoil moisture was rated short or very short at the beginning of August. The Michigan corn crop was about one week ahead of the average stage of development as of September 1. Rainfall in August was 1 to 2 inches below the normal 3 inches in all major corn areas except the East Central (Thumb). This substantially reduced potential yields. About 40 percent of the acreage was rated good or excellent at the outset of September. The harvest of corn for grain began the last week of September, slightly later than normal, and was about 5 percent done October 1. Approximately 70 percent of the acreage had reached maturity, close to the normal progress. The harvest was about half complete by November 1, slightly behind the 5-year average. Combining progressed at the normal rate and was about 95 percent complete by December 1. Yields varied widely. Dry conditions cut yields in parts of southern growing areas while superb yields were realized in the Thumb area.

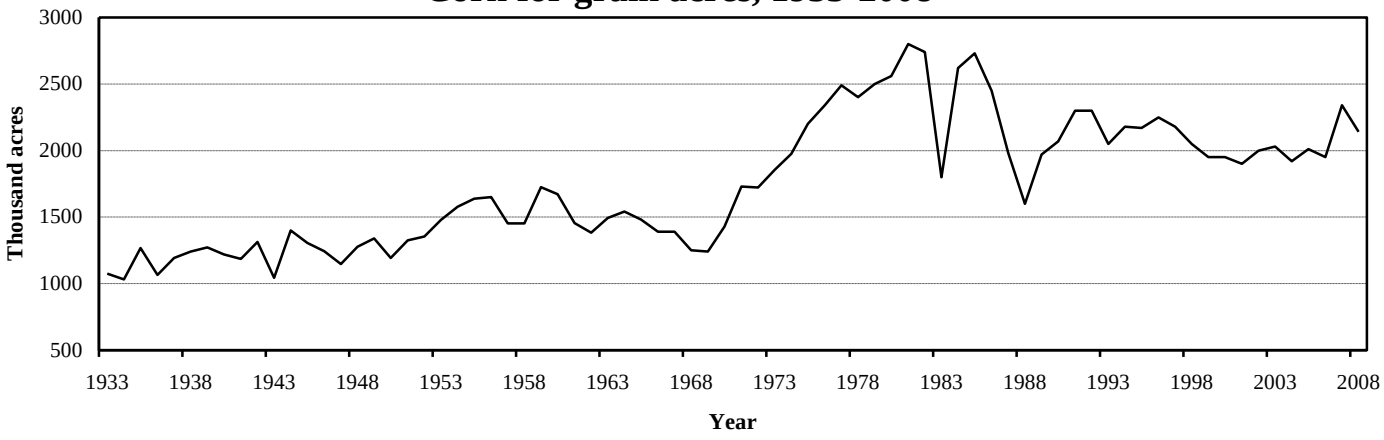
The 2008 corn crop was valued at $1.06 billion, down 15 percent from 2007. Corn continued to be Michigan's number one crop in value of production. The top three counties in corn production in 2008 were Huron, Sanilac, and Saginaw.

**Corn: Acres, yield, production, and value, 2004-2008**

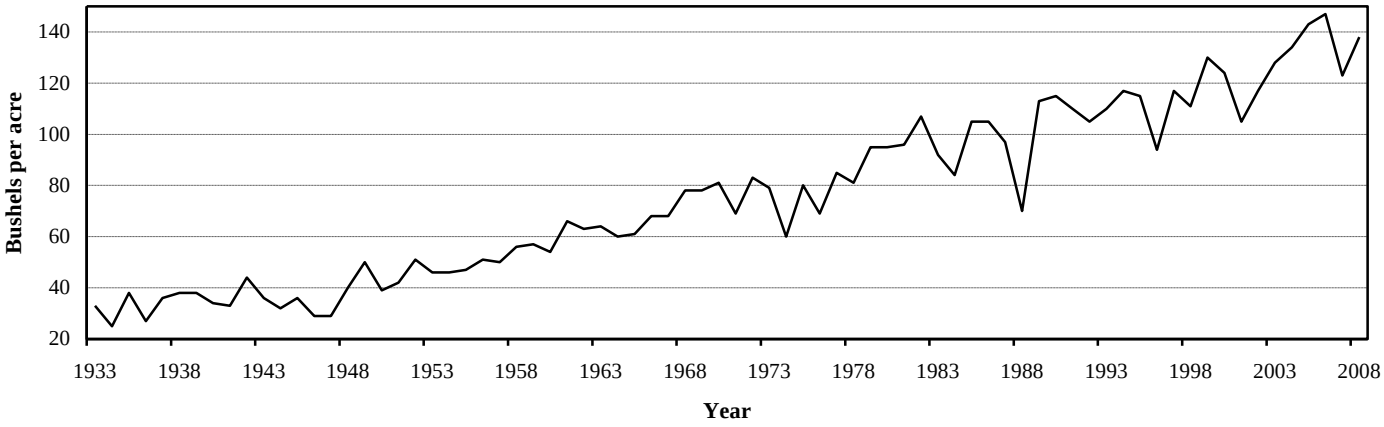
| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Bushels* | *1,000 bushels* | *Dollars* | *1,000 dollars* |
| All | | | | | | |
| 2004 | 2,200 | | | | | |
| 2005 | 2,250 | | | | | |
| 2006 | 2,200 | | | | | |
| 2007 | 2,650 | | | | | |
| 2008 | 2,400 | | | | | |
| Grain | | | | | | |
| 2004 | | 1,920 | 134 | 257,280 | 1.97 | 506,842 |
| 2005 | | 2,010 | 143 | 287,430 | 1.88 | 540,368 |
| 2006 | | 1,950 | 147 | 286,650 | 3.10 | 888,615 |
| 2007 | | 2,340 | 123 | 287,820 | 4.37 | 1,257,773 |
| 2008 | | 2,140 | 138 | 295,320 | 3.60 | 1,063,152 |
| | *1,000 acres* | *1,000 acres* | *Tons* | *1,000 tons* | | |
| Silage | | | | | | |
| 2004 | | 265 | 18.0 | 4,770 | | |
| 2005 | | 230 | 17.5 | 4,025 | | |
| 2006 | | 240 | 16.5 | 3,960 | | |
| 2007 | | 295 | 14.5 | 4,278 | | |
| 2008 | | 250 | 16.5 | 4,125 | | |

[1] Marketing year average.

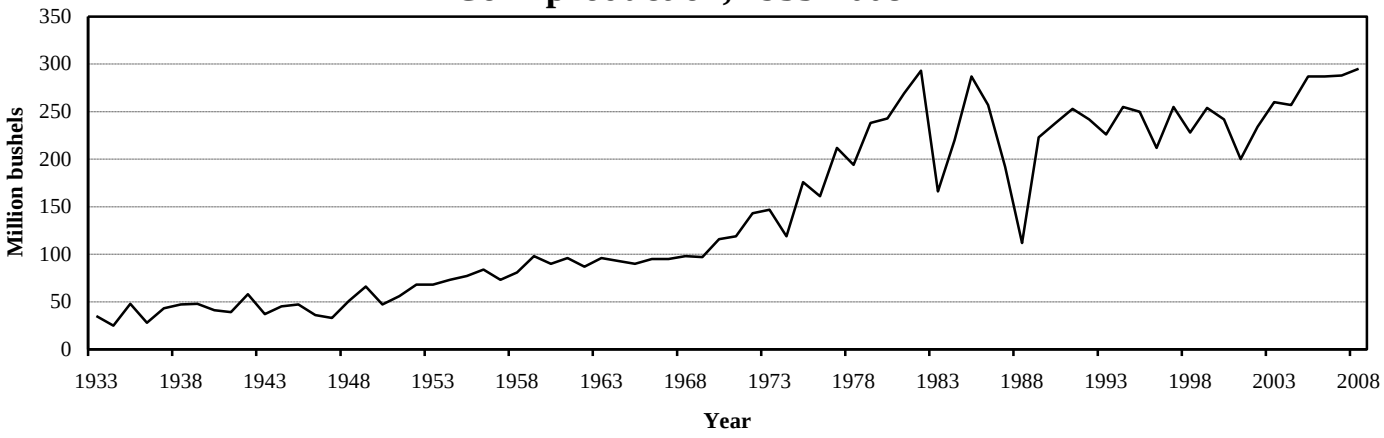
## Corn for grain acres, 1933-2008




## Corn yield, 1933-2008




## Corn production, 1933-2008



**Corn for grain: Stocks by quarter, 2004-2008**

| Crop year | December 1 | | March 1 | | June 1 | | September 1 | |
|---|---|---|---|---|---|---|---|---|
| | On farm | Off farm | On farm | Off farm | On farm | Off farm | On farm | Off farm |
| | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* |
| 2004 | 140,000 | 60,600 | 100,000 | 48,350 | 59,000 | 30,000 | 23,000 | 15,900 |
| 2005 | 165,000 | 71,900 | 110,000 | 56,500 | 65,000 | 39,000 | 31,000 | 15,000 |
| 2006 | 145,000 | 59,000 | 88,000 | 53,400 | 52,000 | 32,900 | 12,500 | 11,900 |
| 2007 | 140,000 | 64,500 | 87,000 | 53,100 | 43,000 | 46,200 | 14,000 | 18,900 |
| 2008 | 160,000 | 62,500 | 100,000 | 44,000 | 60,000 | 38,100 | | |

**Corn: Percentage of acreage planted, 2004-2008**

| Year | Month and day | | | | | |
|---|---|---|---|---|---|---|
| | April | | May | | | June |
| | 20 | 30 | 10 | 20 | 30 | 10 |
| 2004 | 8 | 34 | 61 | 68 | 77 | 90 |
| 2005 | 17 | 34 | 68 | 87 | 98 | 100 |
| 2006 | 3 | 31 | 69 | 84 | 93 | 100 |
| 2007 | 1 | 12 | 48 | 80 | 95 | 100 |
| 2008 | 1 | 24 | 66 | 87 | 97 | 100 |
| 5-year-average | 5.9 | 27.3 | 62.3 | 81.1 | 92.1 | 98.0 |

**Corn: Percentage of acreage silked, 2004-2008**

| Year | Month and day | | | | | |
|---|---|---|---|---|---|---|
| | July | | | | August | |
| | 1 | 10 | 20 | 30 | 10 | 20 |
| 2004 | 0 | 1 | 27 | 61 | 74 | 86 |
| 2005 | 0 | 7 | 47 | 91 | 97 | 100 |
| 2006 | 0 | 6 | 44 | 84 | 95 | 100 |
| 2007 | 0 | 14 | 50 | 77 | 94 | 100 |
| 2008 | 0 | 1 | 24 | 73 | 95 | 100 |
| 5-year-average | 0.0 | 5.8 | 38.5 | 77.2 | 90.8 | 97.2 |

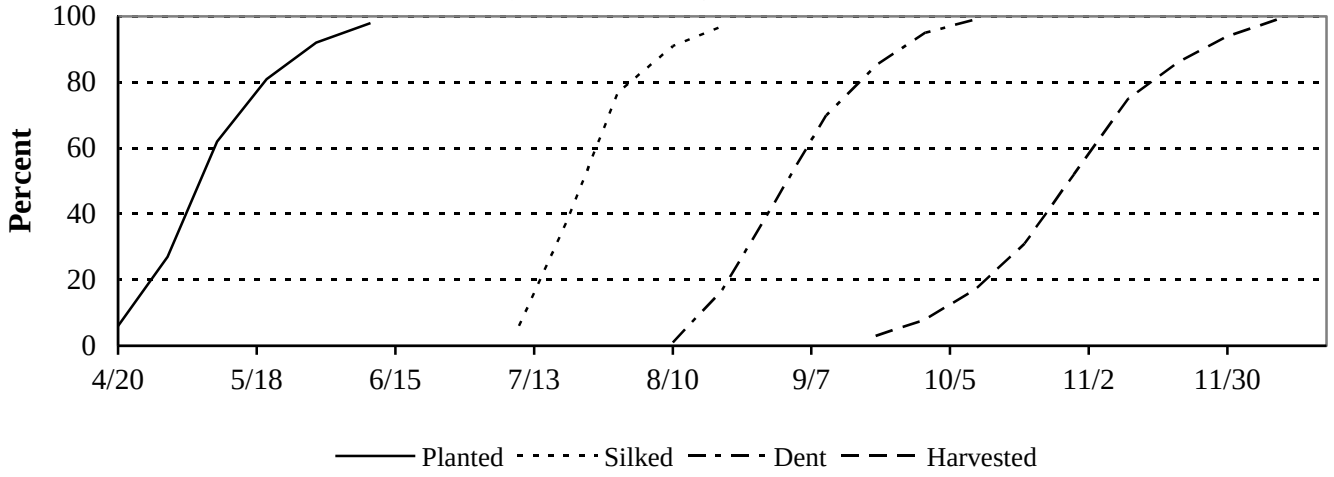
**Corn: Percentage of acreage dent stage, 2004-2008**

| Year | Month and day | | | | | | |
|---|---|---|---|---|---|---|---|
| | August | | | September | | | October |
| | 10 | 20 | 30 | 10 | 20 | 30 | 10 |
| 2004 | 0 | 1 | 11 | 34 | 58 | 82 | 96 |
| 2005 | 0 | 20 | 55 | 84 | 97 | 99 | 100 |
| 2006 | 1 | 27 | 55 | 84 | 93 | 98 | 100 |
| 2007 | 2 | 22 | 45 | 77 | 92 | 100 | 100 |
| 2008 | 0 | 13 | 43 | 72 | 87 | 97 | 100 |
| 5-year-average | 0.6 | 16.8 | 41.9 | 70.3 | 85.3 | 95.3 | 99.2 |

**Corn: Percentage of acreage harvested for grain, 2004-2008**

| Year | Month and day | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | September | | | October | | | November | | | December |
| | 10 | 20 | 30 | 10 | 20 | 30 | 10 | 20 | 30 | 10 |
| 2004 | 0 | 0 | 3 | 13 | 25 | 49 | 68 | 82 | 93 | 100 |
| 2005 | 2 | 7 | 14 | 28 | 48 | 75 | 91 | 96 | 99 | 100 |
| 2006 | 0 | 2 | 5 | 10 | 20 | 34 | 59 | 71 | 84 | 94 |
| 2007 | 0 | 4 | 12 | 23 | 35 | 57 | 81 | 92 | 99 | 100 |
| 2008 | 0 | 0 | 4 | 13 | 26 | 45 | 74 | 86 | 95 | 100 |
| 5-year-average | 0.5 | 2.6 | 7.8 | 17.3 | 30.8 | 51.8 | 74.6 | 85.5 | 93.9 | 98.5 |

## Corn progress
## Five-year average, 2004-2008




# Dry Edible Beans

Michigan dry bean planting progress in June was slow due to rain. Planting was mostly completed by the end of June with some replanting in early July. Excessive rains continued after emergence, causing abandonment of some fields and lower yield projections in others. Harvest began the first week of September for early planted fields. Harvest slowed during mid-to-late September due to rains, putting harvest behind schedule. More than half of the crop was harvested in October, and was mostly completed by the end of the month.

Michigan's 2008 total dry bean production was 3.6 million hundredweight (cwt), which represented 14.1 percent of U.S. production. Michigan ranked second in dry bean production for 2008. The number one dry bean producer in the nation was North Dakota with 10.0 million cwt, down 1 percent from last year.

**Dry edible beans: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Pounds* | *1,000 cwt* | *Dol/cwt* | *1,000 dollars* |
| 2004 | 190 | 185 | 1,700 | 3,145 | 22.50 | 70,763 |
| 2005 | 235 | 230 | 1,700 | 3,910 | 19.60 | 76,636 |
| 2006 | 225 | 215 | 1,900 | 4,085 | 21.10 | 86,194 |
| 2007 | 200 | 195 | 1,600 | 3,120 | 31.90 | 99,528 |
| 2008 | 200 | 195 | 1,850 | 3,607 | 38.00 | 137,066 |

[1] Marketing year average.

**Dry edible beans: Acres, yield, and production, by class, 2004-2008**

| Class and Year | Planted | Harvested | Yield | Production |
|---|---|---|---|---|
| | *Acres* | *Acres* | *Pounds* | *1,000 cwt* |
| Black | 0 | 0 | 0 | 0 |
| 2004 | | | | |
| 2005 | 65,000 | 64,000 | 1,770 | 1,130 |
| 2006 | 91,600 | 86,600 | 1,930 | 1,670 |
| 2007 | 96,500 | 94,500 | 1,630 | 1,540 |
| 2008 | 91,000 | 89,000 | 1,900 | 1,691 |
| Cranberry | 91,000 | 89,000 | 1,900 | 1,691 |
| 2004 | | | | |
| 2005 | 10,500 | 9,500 | 1,470 | 140 |
| 2006 | 8,000 | 7,900 | 1,460 | 115 |
| 2007 | 6,900 | 6,800 | 1,290 | 88 |
| 2008 | 7,200 | 7,000 | 1,540 | 108 |
| Great Northern | 7,200 | 7,000 | 1,540 | 108 |
| 2004 | | | | |
| 2005 | 2,000 | 1,800 | 1,660 | 30 |
| 2006 | 500 | 500 | 2,000 | 10 |
| 2007 [1] | 0 | 0 | 0 | 0 |
| 2008 [1] | 0 | 0 | 0 | 0 |
| Navy | 0 | 0 | 0 | 0 |
| 2004 | | | | |
| 2005 | 75,500 | 74,500 | 1,760 | 1,310 |
| 2006 | 80,000 | 77,500 | 1,960 | 1,520 |
| 2007 | 61,000 | 59,500 | 1,660 | 990 |
| 2008 | 62,000 | 60,500 | 1,920 | 1,162 |
| Pinto | 62,000 | 60,500 | 1,920 | 1,162 |
| 2004 | | | | |
| 2005 | 18,000 | 17,500 | 1,600 | 280 |
| 2006 | 5,000 | 4,900 | 1,900 | 93 |
| 2007 | 4,000 | 3,900 | 1,490 | 58 |
| 2008 | 1,800 | 1,700 | 1,880 | 32 |
| Red kidney, dark | 1,800 | 1,700 | 1,880 | 32 |
| 2004 | | | | |
| 2005 | 8,000 | 7,700 | 1,430 | 110 |
| 2006 | 4,000 | 3,600 | 1,170 | 42 |
| 2007 | 2,300 | 2,000 | 900 | 18 |
| 2008 | 2,500 | 2,400 | 1,210 | 29 |
| Red kidney, light | 2,500 | 2,400 | 1,210 | 29 |
| 2004 | | | | |
| 2005 | 17,000 | 16,800 | 1,430 | 240 |
| 2006 | 11,300 | 10,300 | 1,700 | 175 |
| 2007 | 8,600 | 8,400 | 1,180 | 99 |
| 2008 | 9,500 | 9,300 | 1,260 | 117 |
| Small, red | 9,500 | 9,300 | 1,260 | 117 |
| 2004 | | | | |
| 2005 | 31,000 | 30,500 | 1,770 | 540 |
| 2006 | 20,000 | 19,500 | 2,000 | 390 |
| 2007 | 16,000 | 15,500 | 1,630 | 253 |
| 2008 | 22,400 | 21,800 | 1,950 | 425 |
| Other | 22,400 | 21,800 | 1,950 | 425 |
| 2004 | | | | |
| 2005 | 8,000 | 7,700 | 1,690 | 130 |
| 2006 | 4,600 | 4,200 | 1,670 | 70 |
| 2007 | 4,700 | 4,400 | 1,680 | 74 |
| 2008 | 3,600 | 3,300 | 1,300 | 43 |

[1] Included in Other class.

# Hay and Haylage

Michigan hay production was estimated at 2.63 million tons, up from 2.43 in 2007. Alfalfa and alfalfa mixtures accounted for 85 percent of all dry hay produced. All hay harvested acres were estimated at 1.02 million, down from 1.05 million in 2007. The average all hay yield was 2.58 tons per acre, up from 2.31 the previous year. During the summer, dry conditions were good for harvest of alfalfa but poor for regrowth. Humidity made harvest difficult in some areas. Some areas had good cutting conditions with favorable weather but the light drought in other regions slowed development. At the beginning of September, farmers stated that regrowth had been slow around the State and the third cutting was short. By the end of September, one-fourth of the hay crop had completed a fourth cutting while others doubted a fourth cutting was likely. Alfalfa accounted for 770,000 acres of the total harvested with a yield of 2.9 tons per acre. Other hay accounted for 250,000 acres with a yield of 1.6 tons per acre. Value of the hay crop was $402 million, up 34 percent from 2007.

**Hay, haylage, and greenchop: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Tons* | *1,000 tons* | *Dollars* | *1,000 dollars* |
| All dry hay | | | | | | |
| 2004 | | 1,100 | 2.90 | 5,895 | 94.50 | 296,238 |
| 2005 | | 1,150 | 2.63 | 3,020 | 90.00 | 269,340 |
| 2006 | | 1,120 | 2.87 | 3,212 | 94.00 | 300,404 |
| 2007 | | 1,050 | 2.31 | 2,429 | 124.00 | 299,411 |
| 2008 | | 1,020 | 2.58 | 2,633 | 153.00 | 401,948 |
| Alfalfa hay | | | | | | |
| 2004 | | 850 | 3.10 | 2,635 | 97.50 | 256,913 |
| 2005 | | 900 | 2.80 | 2,520 | 92.00 | 231,840 |
| 2006 | | 810 | 3.20 | 2,592 | 97.00 | 251,424 |
| 2007 | | 770 | 2.50 | 1,925 | 127.00 | 244,475 |
| 2008 | | 770 | 2.90 | 2,233 | 156.00 | 348,348 |
| Alfalfa seedings | | | | | | |
| 2004 | 135 | | | | | |
| 2005 | 135 | | | | | |
| 2006 | 120 | | | | | |
| 2007 | 100 | | | | | |
| 2008 | 115 | | | | | |
| Other hay | | | | | | |
| 2004 | | 250 | 2.20 | 550 | 71.50 | 39,325 |
| 2005 | | 250 | 2.00 | 500 | 75.00 | 37,500 |
| 2006 | | 310 | 2.00 | 620 | 79.00 | 48,980 |
| 2007 | | 280 | 1.80 | 504 | 109.00 | 54,936 |
| 2008 | | 250 | 1.60 | 400 | 134.00 | 53,600 |
| All haylage and greenchop | | | | | | |
| 2004 | | 335 | 6.03 | 2,020 | 0.00 | 0 |
| 2005 | | 320 | 6.50 | 2,080 | 0.00 | 0 |
| 2006 | | 300 | 6.64 | 1,992 | 0.00 | 0 |
| 2007 | | 270 | 6.70 | 1,810 | 0.00 | 0 |
| 2008 | | 285 | 6.24 | 1,778 | 0.00 | 0 |
| Alfalfa haylage and greenchop | | | | | | |
| 2004 | | 310 | 6.20 | 1,922 | 0.00 | 0 |
| 2005 | | 300 | 6.70 | 2,010 | 0.00 | 0 |
| 2006 | | 280 | 6.90 | 1,932 | 0.00 | 0 |
| 2007 | | 250 | 7.00 | 1,750 | 0.00 | 0 |
| 2008 | | 270 | 6.40 | 1,728 | 0.00 | 0 |

[1] Marketing year average.

**Hay: Stocks on farms, 2005-2009**

| Year | May 1 | December 1 |
|---|---|---|
| | *1,000 tons* | *1,000 tons* |
| 2005 | 500 | 1,852 |
| 2006 | 395 | 2,385 |
| 2007 | 350 | 1,700 |
| 2008 | 320 | 1,998 |
| 2009 | 450 | ([1]) |

[1] Published in January 2010.

# Maple Syrup

Michigan maple syrup production was estimated at 115,000 gallons for the 2008 season. That was the highest since 1947 and 10 percent above 2008 production. Cool nights and warm days provided optimal tapping conditions. The length of the season was 25 days, compared to 23 days in 2008. Producers indicated that 56 percent of the syrup was medium in color. Michigan was ranked fifth in maple syrup production in 2009 and produced 5 percent of the total U.S. production. Total taps were 450,000, and the syrup yield was 0.256 gallons per tap. The average price per gallon sold for 2008 production was $41.00, and the value of production was $4.305 million, up from $2.704 million in 2007.

**Maple syrup: Taps, yield, production, price, and value, 2005-2009**

| Year | Taps | Yield per tap | Production | Price per gallon | Value of production |
|---|---|---|---|---|---|
| | *1,000* | *Gallons* | *1,000 gallons* | *Dollars* | *1,000 dollars* |
| 2005 | 390 | 0.149 | 58 | 36.00 | 2,088 |
| 2006 | 375 | 0.208 | 78 | 37.00 | 2,886 |
| 2007 | 390 | 0.167 | 65 | 41.60 | 2,704 |
| 2008 | 405 | 0.259 | 105 | 41.00 | 4,305 |
| 2009 | 450 | 0.256 | 115 | ( [1] ) | ( [1] ) |

[1] Published in June 2010.

# Mint

**Mint: Acres, yield, production, and value, 2004-2008**

| Year | Harvested | Yield | Production | Price per pound [1] | Value of production |
|---|---|---|---|---|---|
| | *1,000 acres* | *Pounds* | *1,000 Pounds* | *Dollars* | *1,000 dollars* |
| Peppermint | | | | | |
| 2004 | 1.0 | 45 | 45 | 10.90 | 491 |
| 2005 | 1.0 | 35 | 35 | 12.00 | 420 |
| 2006 | 0.7 | 50 | 35 | 13.50 | 473 |
| 2007 | 0.7 | 40 | 28 | 14.40 | 403 |
| 2008 | 0.8 | 45 | 36 | 28.00 | 1,008 |
| Spearmint | | | | | |
| 2004 | 1.6 | 45 | 72 | 9.30 | 670 |
| 2005 | 1.6 | 35 | 56 | 9.50 | 532 |
| 2006 | 1.6 | 60 | 96 | 10.00 | 960 |
| 2007 | 1.5 | 60 | 90 | 12.00 | 1,080 |
| 2008 | 1.5 | 60 | 90 | 15.00 | 1,350 |

[1] Marketing year average.

# Oats

There was an increase in oat acreage for the State in 2008. Growers planted 75,000 acres of oats in 2008, compared with 70,000 the previous year. Harvested acres, at 60,000, were also up 5,000 from last year. The 2008 oat production was 3.96 million bushels, up 29 percent from the previous year. Yield, at 66 bushels per acre, was up 10 bushels from 2007.

Planting of oats progressed on schedule with some emergence by the middle of May. The crop looked good and developed well during the summer. Disease and insect pressure remained low, and three fourths of the crop was headed by the end of June. Oats were turning color quickly with harvest just beginning in select areas by July 20. Harvest was in full swing at the beginning of August and was essentially completed by early September. For 2008, Presque Isle County was ranked first in oat production, while Sanilac, Shiawassee, Grand Traverse, Isabella, and Ogemaw rounded out the top five counties.

**Oats: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Bushels* | *1,000 bushels* | *Dollars* | *1,000 dollars* |
| 2004 | 80 | 65 | 68 | 4,420 | 1.72 | 7,602 |
| 2005 | 90 | 75 | 61 | 4,575 | 1.89 | 8,647 |
| 2006 | 80 | 65 | 62 | 4,030 | 1.93 | 7,778 |
| 2007 | 70 | 55 | 56 | 3,080 | 2.91 | 8,963 |
| 2008 | 75 | 60 | 66 | 3,960 | 3.30 | 13,068 |

[1] Marketing year average.

# Potatoes

Michigan's 2008 potato production was 14.88 million hundredweight (cwt) up slightly from 14.70 million in 2007. Planted acres were 43,000 and harvested acres were 42,500. The State's average yield tied the record high of 350 cwt per acre set in 2007. Potato planting conditions were good this year with planting mostly completed by June 8, 2008. The growing season was also good with little disease and insect pressures. Some potato fields matured earlier than normal and early potatoes appeared in farmer's markets in early July. Excessive rains in October meant some potatoes went into storage with higher moisture levels than normal, but cooler temperatures during the early storage season reduced this impact. Harvest was mostly finished by early November.

For 2008, Michigan again ranked eighth among States for potato production. Most Michigan potatoes are whites, which comprised approximately 87 percent of planted acreage, followed by 11 percent russets, 1 percent reds, and 1 percent yellow. Whites are processed for potato chips or sold for table use, while russets are used for french fries and other frozen products.

**Fall potatoes: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Cwt* | *1,000 cwt* | *Dollars* | *1,000 dollars* |
| 2004 | 43.0 | 42.0 | 325 | 13,650 | 6.95 | 94,868 |
| 2005 | 43.0 | 42.8 | 325 | 13,910 | 7.95 | 110,585 |
| 2006 | 43.5 | 43.0 | 330 | 14,190 | 8.35 | 118,487 |
| 2007 | 42.5 | 42.0 | 350 | 14,700 | 8.45 | 124,215 |
| 2008 | 43.0 | 42.5 | 350 | 14,875 | 10.50 | 156,188 |

[1] Marketing year average.

**Fall potatoes: Stocks by type as percent of total stocks, December 1, 2004-2008**

| Type | 2004 | 2005 | 2006 | 2007 | 2008 |
|---|---|---|---|---|---|
| | *Percent* | *Percent* | *Percent* | *Percent* | *Percent* |
| White | 89 | 87 | 87 | 86 | 87 |
| Russet | 10 | 12 | 12 | 12 | 11 |
| Red | 1 | 1 | 1 | 1 | 1 |
| Yellow [1] | 0 | 0 | 0 | 1 | 1 |

[1] Estimates began in 2007.

**Fall potatoes: Production and disposition, 2004-2008**

| Crop year | Production | Total used for seed | Farm Disposition | | Sold |
|---|---|---|---|---|---|
| | | | Seed, feed, and home use | Shrinkage and loss | |
| | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* |
| 2004 | 13,650 | 860 | 194 | 1,656 | 11,800 |
| 2005 | 13,910 | 1,044 | 182 | 1,728 | 12,000 |
| 2006 | 14,190 | 961 | 180 | 1,800 | 12,210 |
| 2007 | 14,700 | 1,046 | 185 | 1,815 | 12,700 |
| 2008 | 14,875 | [1] 0 | [1] 0 | [1] 0 | [1] 0 |

[1] Published in September 2009

**Fall potatoes: Stocks, 2004-2008**

| Crop year | December 1 | January 1 | February 1 | March 1 | April 1 | May 1 |
|---|---|---|---|---|---|---|
| | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* | *1,000 cwt* |
| 2004 | 8,000 | 6,300 | 4,800 | 3,600 | 2,200 | 900 |
| 2005 | 7,900 | 6,200 | 4,500 | 3,100 | 1,700 | 500 |
| 2006 | 8,100 | 6,300 | 4,600 | 3,300 | 1,800 | 700 |
| 2007 | 8,800 | 7,000 | 5,300 | 3,700 | 2,100 | 800 |
| 2008 | 8,300 | 6,500 | 5,000 | 3,500 | 1,900 | 700 |

# Soybeans

Michigan soybean production totaled 69.9 million bushels, down 2 percent from 2007. The yield was 37 bushels per acre in 2008, which was the lowest yield of the previous five years. Planted acres increased by 100,000 acres from last year. Harvested acres increased accordingly to 1.89 million. Soybean prices fell by 5 percent from 2007. A cool spring led to a slow start to the soybean planting season. A small amount of soybeans were planted in late April and early May. Planting hastened in May, and progressed faster than the five-year average. Emergence concluded around the middle of June, also ahead of the average. Plant condition and devolpment varied by region into July, while some fields remained damp. Into August, the crop was generally in need of rain and some yellowing was reported, but progress was still slightly ahead of the five-year average. Heavy rains passed through the State at the beginning of September causing localized flooding. Harvest began in middle to late September and continued at an average pace though the middle of October when ideal harvest conditions allowed for harvest to move along rapidly. Harvest wrapped up in early to middle November.

**Soybeans: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Bushels* | *1,000 bushels* | *Dollars* | *1,000 dollars* |
| 2004 | 2,000 | 1,980 | 38.0 | 75,240 | 5.72 | 430,373 |
| 2005 | 2,000 | 1,990 | 38.5 | 76,615 | 5.73 | 439,004 |
| 2006 | 2,000 | 1,990 | 46.0 | 91,540 | 6.27 | 573,956 |
| 2007 | 1,800 | 1,790 | 40.0 | 71,600 | 9.69 | 693,804 |
| 2008 | 1,900 | 1,890 | 37.0 | 69,930 | 9.20 | 643,356 |

[1] Marketing year average.

**Soybeans: Stocks by quarter, 2004-2008**

| Crop year | December 1 | | March 1 | | June 1 | | September 1 | |
|---|---|---|---|---|---|---|---|---|
| | On farm | Off farm | On farm | Off farm | On farm | Off farm | On farm | Off farm |
| | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* |
| 2004 | 35,000 | 21,960 | 22,000 | 10,890 | 7,600 | 6,530 | 2,500 | 2,460 |
| 2005 | 33,000 | 22,600 | 22,000 | 14,600 | 11,500 | 6,850 | 5,000 | 3,300 |
| 2006 | 38,000 | 22,700 | 26,000 | 18,500 | 12,000 | 12,150 | 3,100 | 7,800 |
| 2007 | 26,000 | 29,000 | 17,000 | 23,900 | 3,500 | 12,200 | 2,500 | 4,580 |
| 2008 | 28,000 | 24,200 | 15,500 | 14,100 | 5,100 | 8,650 | | |

**Soybeans: Percentage of acreage planted, 2004-2008**

| Year | Month and day | | | | | | |
|---|---|---|---|---|---|---|---|
| | May | | | June | | | July |
| | 10 | 20 | 30 | 10 | 20 | 30 | 10 |
| 2004 | 24 | 35 | 45 | 72 | 87 | 97 | 100 |
| 2005 | 34 | 69 | 90 | 98 | 100 | 100 | 100 |
| 2006 | 37 | 56 | 73 | 90 | 99 | 100 | 100 |
| 2007 | 14 | 36 | 76 | 96 | 100 | 100 | 100 |
| 2008 | 29 | 59 | 87 | 96 | 100 | 100 | 100 |
| 5-year-average | 27.6 | 50.9 | 74.1 | 90.5 | 97.1 | 99.4 | 100.0 |

**Soybeans: Percentage of acreage setting pods, 2004-2008**

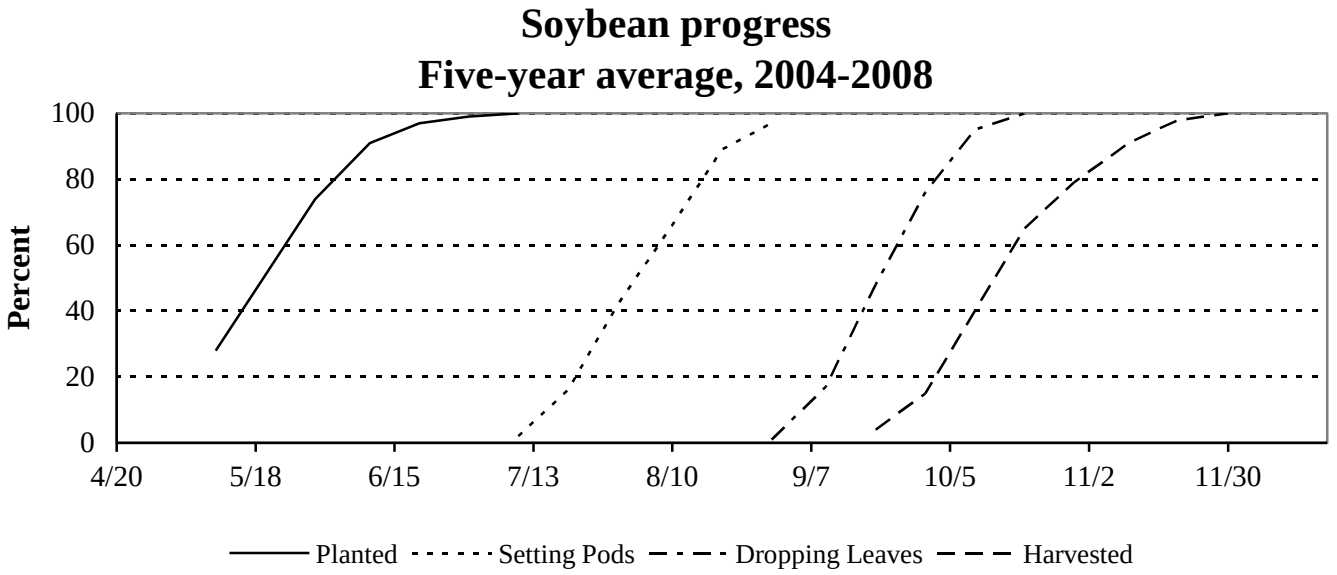
| Year | Month and day | | | | | |
|---|---|---|---|---|---|---|
| | July | | | August | | |
| | 10 | 20 | 30 | 10 | 20 | 30 |
| 2004 | 0 | 7 | 23 | 49 | 76 | 88 |
| 2005 | 3 | 22 | 55 | 83 | 97 | 100 |
| 2006 | 3 | 22 | 42 | 74 | 93 | 99 |
| 2007 | 4 | 22 | 48 | 75 | 97 | 100 |
| 2008 | 0 | 6 | 42 | 77 | 95 | 100 |
| 5-year-average | 1.9 | 15.7 | 42.0 | 66.1 | 88.8 | 96.6 |

**Soybeans: Percentage of acreage shedding leaves, 2004-2008**

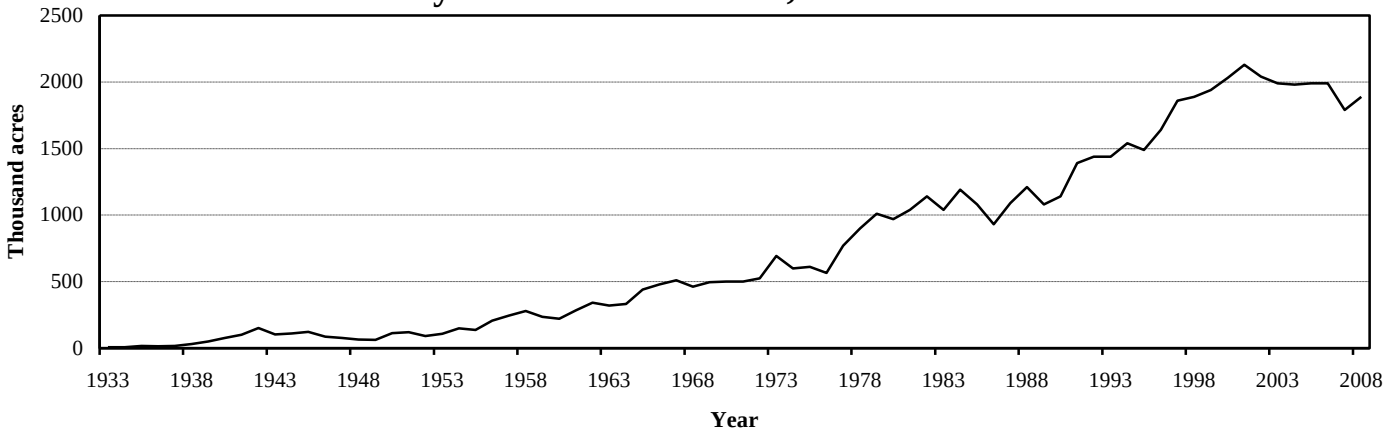
| Year | Month and day | | | | | | |
|---|---|---|---|---|---|---|---|
| | August | | September | | | October | |
| | 20 | 30 | 10 | 20 | 30 | 10 | 20 |
| 2004 | 0 | 0 | 4 | 18 | 52 | 91 | 96 |
| 2005 | 0 | 3 | 37 | 82 | 95 | 100 | 100 |
| 2006 | 0 | 1 | 15 | 44 | 75 | 90 | 99 |
| 2007 | 0 | 1 | 10 | 42 | 76 | 98 | 100 |
| 2008 | 0 | 2 | 18 | 54 | 84 | 96 | 100 |
| 5-year-average | 0.0 | 1.3 | 16.9 | 48.0 | 76.3 | 95.0 | 99.9 |

**Soybeans: Percentage of acreage harvested, 2004-2008**

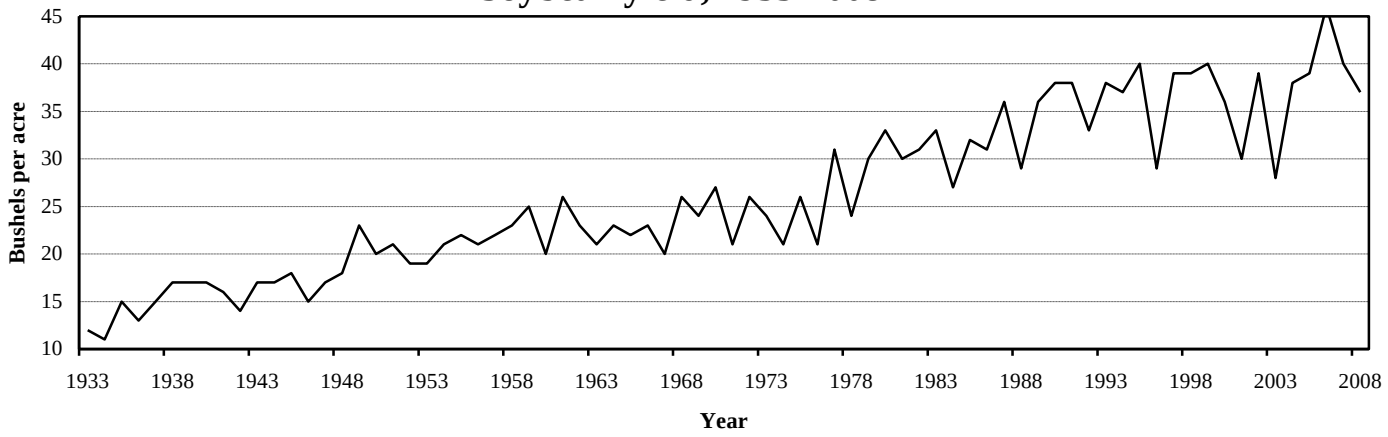
| Year | Month and day | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | September | | | October | | | November | | |
| | 10 | 20 | 30 | 10 | 20 | 30 | 10 | 20 | 30 |
| 2004 | 0 | 1 | 11 | 40 | 58 | 69 | 81 | 96 | 100 |
| 2005 | 0 | 11 | 33 | 69 | 87 | 93 | 99 | 100 | 100 |
| 2006 | 0 | 4 | 7 | 23 | 42 | 60 | 84 | 93 | 98 |
| 2007 | 0 | 1 | 10 | 33 | 60 | 81 | 96 | 100 | 100 |
| 2008 | 0 | 2 | 12 | 36 | 76 | 91 | 97 | 100 | 100 |
| 5-year-average | 0.0 | 3.7 | 14.5 | 40.3 | 64.5 | 78.9 | 91.4 | 97.6 | 99.7 |



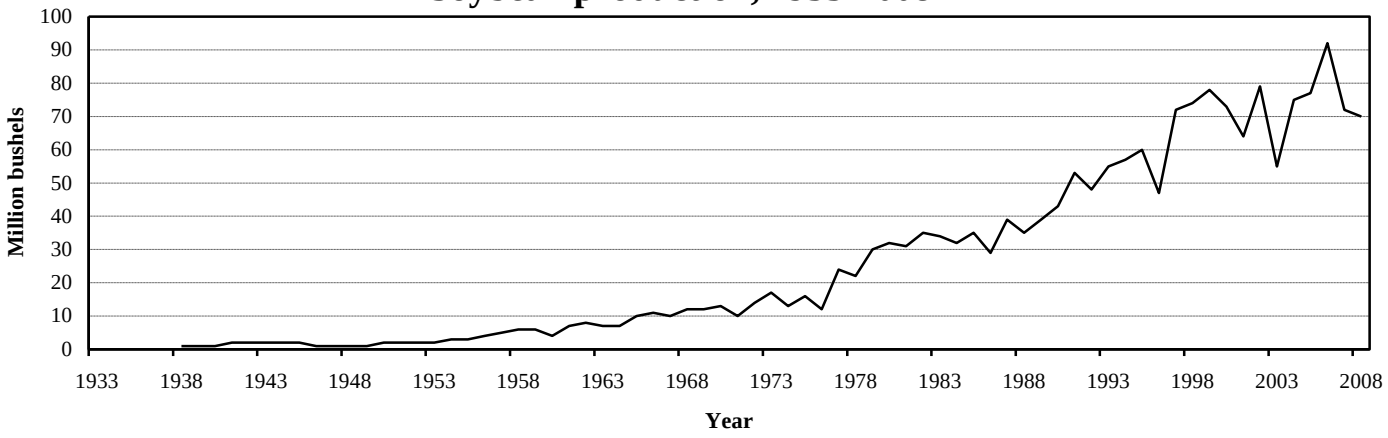
## Soybean harvested acres, 1933-2008




## Soybean yield, 1933-2008




## Soybean production, 1933-2008



# Sugarbeets

Acres planted to sugarbeets were estimated at 137,000 in 2008, down 13,000 acres from the previous year. Harvested acreage was estimated at 136,000, down from 149,000 in 2007. The yield set a new record with 28.7 tons per acre. The previous record high was 23.4 set in 2007. Even though harvested acres were down, the record yield helped increase production to a total of 3.90 million tons, up 12 percent from 2007. Planting was complete by mid-May. The sugarbeet crop development was good with little disease and weed pressure. Precipitation levels were ideal for the sugarbeet crop during the critical growing periods, leading to the record yield. Harvest started out slow due to rains, but proceeded to near normal by the end of the season. Piling began towards the end of October and harvest was finished by mid November.

**Sugarbeets: Acres, yield, production, and value, 2004-2008**

| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Tons* | *1,000 tons* | *Dollars* | *1,000 dollars* |
| 2004 | 165 | 163 | 21.1 | 3,439 | 26.40 | 90,790 |
| 2005 | 154 | 152 | 21.3 | 3,238 | 34.40 | 111,387 |
| 2006 | 155 | 154 | 23.2 | 3,573 | 38.00 | 135,774 |
| 2007 | 150 | 149 | 23.4 | 3,487 | 36.00 | 125,532 |
| 2008 | 137 | 136 | 28.7 | 3,903 | ( [2] ) | ( [2] ) |

[1] Marketing year average.
[2] Published in February 2010.

# Wheat

Michigan's 2008 winter wheat crop set a new record high at 48.99 million bushels. Planted acres increased to 730,000 acres from 550,000 the previous year. Harvested acreage was up 34 percent from last year, at 710,000 acres. The average yield, at 69 bushels per acre, was up 6 percent from last year. The value of the crop increased 60 percent to $277 million. Huron, Sanilac, Lenawee, Tuscola, and Saginaw were the top five counties in wheat production.

Plantings of winter wheat began the second week of September. Varying weather conditions early in the growing season slightly impeded the progress of the crop, which consistently remained behind the five-year average. However, crop progress improved beginning in June and was comparable to the five-year average. There were a few reports of head scab, fusarium head blight and powdery mildew throughout the growing season. Overall, the crop was of good to excellent quality. By the middle of June, heading and flowering were nearly completed in many areas. The crop turned yellow by the middle of July, on par with normal.

Harvest began in the middle of July and was completed by the second week of August. Warm temperatures and low moisture levels were conducive for harvesting the crop.

**Wheat: Acres, yield, production, and value, 2004-2008**

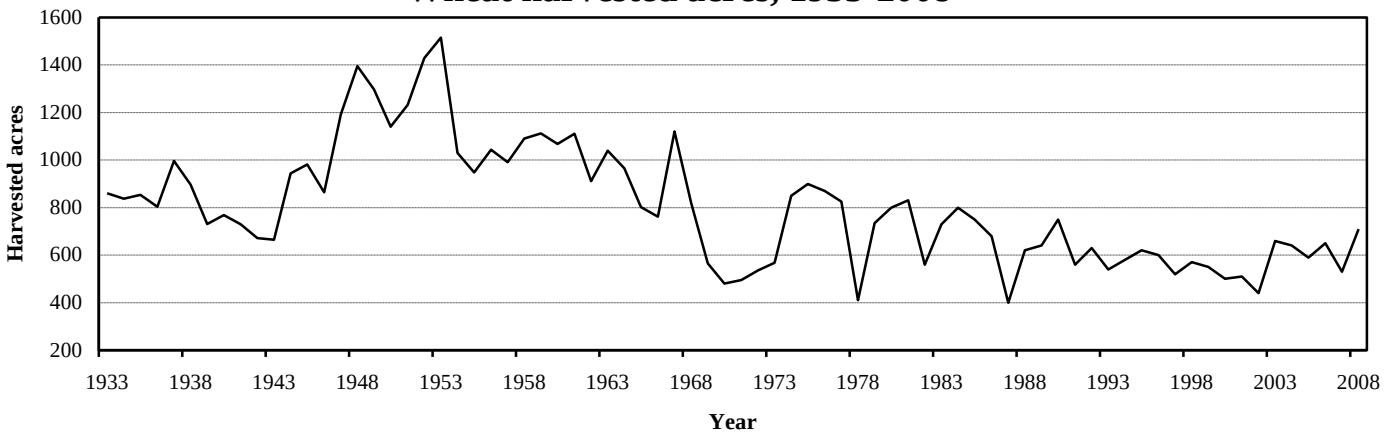
| Year | Planted | Harvested | Yield | Production | Price [1] | Value of production |
|---|---|---|---|---|---|---|
| | *1,000 acres* | *1,000 acres* | *Bushels* | *1,000 bushels* | *Dollars* | *1,000 dollars* |
| 2004 | 660 | 640 | 64 | 40,960 | 3.01 | 123,290 |
| 2005 | 600 | 590 | 66 | 38,940 | 3.13 | 121,882 |
| 2006 | 660 | 650 | 73 | 47,450 | 3.41 | 161,805 |
| 2007 | 550 | 530 | 65 | 34,450 | 5.01 | 172,595 |
| 2008 | 730 | 710 | 69 | 48,990 | 5.65 | 276,794 |

[1] Marketing year average.

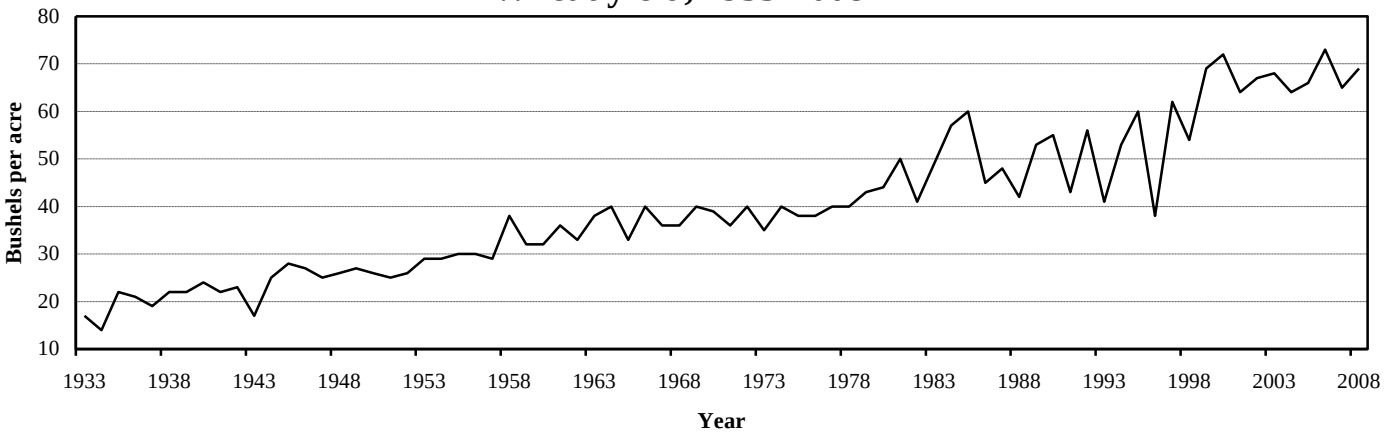
**Wheat: Stocks by quarter, 2004-2008**

| Crop year | September 1 | | December 1 | | March 1 | | June 1 | |
|---|---|---|---|---|---|---|---|---|
| | On farm | Off farm | On farm | Off farm | On farm | Off farm | On farm | Off farm |
| | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* | *1,000 bushels* |
| 2004 | 7,800 | 28,430 | 3,500 | 24,350 | 2,900 | 19,160 | 800 | 14,770 |
| 2005 | 6,900 | 28,450 | 3,600 | 23,700 | 1,300 | 17,800 | 600 | 10,550 |
| 2006 | 7,500 | 33,200 | 3,800 | 25,975 | 1,400 | 18,400 | 300 | 12,250 |
| 2007 | 2,600 | 30,400 | 2,400 | 21,600 | 300 | 14,230 | 70 | 7,670 |
| 2008 | 6,200 | 30,350 | 2,600 | 26,800 | 1,900 | 21,600 | 850 | 16,700 |

## Wheat harvested acres, 1933-2008




## Wheat yield, 1933-2008




## Wheat production, 1933-2008